IN THE CLAIMS

Claim 1 (Amended):

1. A method for making optical fiber, the method comprising the steps of:

forming a glass core rod by soot deposition, the glass core rod having a core region surrounded by a cladding region;

dehydrating the glass core rod in a first environment including oxygen [alone or with] and at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide [, wherein the first environment is neither oxygen-rich nor oxygen-deficient];

adjusting the oxygen stoichiometry of the first environment to establish an environment that is neither oxygen-rich nor oxygen-deficient;

consolidating the glass core rod;

forming an overclad region around the glass core rod to form an overclad optical fiber preform;

drawing fiber from the overclad optical fiber preform; and

exposing the drawn optical fiber to an atmosphere containing deuterium.

Claim 2 (Original):

2. The method as recited in claim 1, wherein the overclad region forming step further comprises the steps of:

depositing soot around the glass core rod;

dehydrating the deposited soot in a second environment including oxygen alone or with at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide, wherein the second environment is neither oxygen-rich nor oxygen-deficient; and

consolidating the deposited soot around the glass core rod.

Claim 3 (Original):

3. The method as recited in claim 2, wherein the soot deposition in the overclad region forming step is selected from the group consisting of vapor axial deposition (VAD) and outside vapor deposition (OVD).

Claim 4 (Original):

4. The method as recited in claim 1, wherein the exposing step further comprises one of exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.01 atmospheres of deuterium at room temperature for approximately 6 days, and exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.05 atmospheres of deuterium at room temperature for approximately 1.5 days.

Claim 5 (Original):

5. The method as recited in claim 1, wherein the overclad region forming step further comprises the steps of:

positioning an overclad tube around the glass core rod; and

heating the overclad tube along the length thereof in such a way that the overclad tube collapses onto the glass core rod to form the overclad optical fiber preform.

Claim 6 (Original):

6. The method as recited in claim 1, wherein the soot deposition in the glass core rod forming step is selected from the group consisting of vapor axial deposition (VAD) and outside vapor deposition (OVD).

Claim 7 (Amended):

7. A method for making optical fiber, the method comprising the steps of:

forming a glass core rod by soot deposition, the glass core rod having a core region surrounded by a cladding region;

dehydrating the glass core rod in a first environment including [one of oxygen alone or] oxygen and at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide [, wherein the first environment is neither oxygen-rich nor oxygen-deficient;]

adjusting the oxygen stoichiometry of the first environment to establish an environment that is neither oxygen-rich nor oxygen-deficient;

consolidating the glass core rod;

forming an overclad region around the glass core rod to form an overclad optical fiber preform;

drawing fiber from the overclad optical fiber preform; and

exposing the drawn optical fiber to a deuterium atmosphere,

wherein the optical fiber has a transmission loss at 1385 nanometers (nm) that is less than 0.33 dB/km and [the] any aging loss increase thereafter is less than 0.04 dB/km.

Claim 8 (Original):

8. The method as recited in claim 7, wherein the exposing step further comprises exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.01 atmospheres of deuterium at room temperature for approximately 6 days, and exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.05 atmospheres of deuterium at room temperature for approximately 1.5 days.

Claim 9 (Original):

9. The method as recited in claim 7, wherein the overclad region forming step further comprises the steps of:

depositing soot around the glass core rod;

dehydrating the deposited soot in a second environment including oxygen alone or with at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide; and

consolidating the deposited soot around the glass core rod.

Claim 10 (Original):

10. The method as recited in claim 9, wherein the dehydrating step in the overclad region forming step further comprises dehydrating the deposited soot in

the second environment, wherein the second environment is neither oxygen-rich nor oxygen-deficient.

Claim 11 (Original):

11. The method as recited in claim 9, wherein the soot deposition in the overclad region forming step is selected from the group consisting of vapor axial deposition (VAD) and outside vapor deposition (OVD).

Claim 12 (Original):

12. The method as recited in claim 7, wherein the overclad region forming step further comprises the steps of:

positioning an overclad tube around the glass core rod; and

heating the overclad tube along the length thereof in such a way that the overclad tube collapses onto the glass core rod to form the overclad optical fiber preform.

Claim 13 (Original):

13. The method as recited in claim 7, wherein the soot deposition in the glass core rod forming step is selected from the group consisting of vapor axial deposition (VAD) and outside vapor deposition (OVD).

Claim 14 (Amended):

14. A method for making optical fiber, the method comprising the steps of:

forming a glass core rod by soot deposition, the glass core rod having a core region surrounded by a cladding region;

dehydrating the glass core rod in a first environment including oxygen [alone or with] and at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide [, wherein the first environment is neither oxygen-rich nor oxygen-deficient;]

adjusting the oxygen stoichiometry of the first environment to establish an environment that is neither oxygen-rich nor oxygen-deficient;

consolidating the glass core rod;

forming an overclad region around the glass core rod to form an overclad optical fiber preform,

wherein the overclad region forming step includes depositing soot around the glass core rod, dehydrating the deposited soot in a second environment including oxygen [alone or with] and at least one of chlorine-containing gases, fluorine-containing gases and carbon monoxide, and consolidating the deposited soot to form the overclad region [, wherein the second environment is neither oxygen-rich nor oxygen-deficient; and]

adjusting the oxygen stoichiometry of the second environment to establish an environment that is neither oxygen-rich nor oxygen-deficient; and

drawing fiber from the overclad optical fiber preform.

Claim 15 (Original):

15. The method as recited in claim 14, further comprising the step of exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.01 atmospheres of deuterium at room temperature for approximately 6 days and exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.05 atmospheres of deuterium at room temperature for approximately 1.5 days.

Claim 16 (Original):

16. The method as recited in claim 14, wherein the soot deposition in at least one of the glass core rod forming step and the overclad region forming step is selected from the group consisting of vapor axial deposition (VAD) and outside vapor deposition (OVD).

Claim 17 (Original):

17. The method as recited in claim 14, wherein the optical fiber has a transmission loss at 1385 nanometers (nm) that is less than 0.33 dB/km and the aging loss increase thereafter is less than 0.04 dB/km.

Claim 18 (Canc lled)

Claim 19 (Cancelled)

Claim 20 (Cancelled)

Claim 21 (Cancelled)